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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,088	07/22/2004	Gang Hoon Lee	HI-207	5506
34610	7590	08/16/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			VOGELBACKER, MARK T	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/502,088

Applicant(s)

LEE ET AL.

Examiner

Mark T. Vogelbacker

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

In line 6, insert “said” before “pivotal plates” to acknowledge previous introduction in line 5.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the term “vertical planes” is not properly defined in line 6. There is an insufficient structural relationship between “vertical planes” and the “fixed plate” or the “pivot plates”. In lines 6-7, it is unclear what rotates relative to the shaft. The phrase “relative rotational movement” implies that both the fixed and pivotal plates rotate relative to the shaft, but the figures clearly indicate that the pivotal plates do not rotate relative to the shaft. In line 14, the term “folded” is not properly defined. Does “folded” mean “attached to”? In line 19, the terms “tightening face” and “both ends” are not properly defined. What structures do these terms

Art Unit: 3677

refer to? Apparently, the geometry of the braking member is not given to define “both ends” in which the spring is inserted.

In claim 2, the term “outer circumference” is not properly defined in line 2. As best understood from the figures, “anti-release” is not disposed in the “outer circumference” of the pivotal plates.

In claim 3, line 2, the phrase “each are” does not make sense. Does this mean “are each”? The phrase “in at least one face” is not understood.

In claim 4, the phrase “in contact faces” is not properly defined in line 2. Does “in contact faces” mean “in between the contact faces”?

In claim 5, the phrase “a hole-sliding portion” is vague and indefinite in line 3. The phrase suggests that the hole moves relative to a part.

In claim 6, the term “both ends” is not properly defined in line 4. There is an insufficient structural relationship between “both ends” and the “braking-tightening planes”. The term “owing” in line 5 is not properly defined. Does “owing” mean “caused by”?

In claim 8, the term “vertically folded” is vague and indefinite in line 2. Is “vertically” used as opposed to “horizontally”? Further, it is unclear what is defined as “vertically” without defining the geometry of the leaf spring.

In claim 10, the term “vertical planes” is not properly defined on page 14, line 4. There is an insufficient structural relationship between “vertical planes” and the “fixed plate” or the “pivot plate”. In lines 4-5, it is unclear what rotates relative to the shaft. The phrase “relative rotational movement” implies that both the fixed and pivotal plates rotate relative to the shaft, but the figures clearly indicate that the pivotal plates do not rotate relative to the shaft. On page

Art Unit: 3677

15, line 3, the term “folded” is not properly defined. Does “folded” mean “attached to”? On page 15, line 8, the phrase “both upper ends” is not properly defined. What structure does “both upper ends” refer to?

In claim 11, line 2, the phrase “both ends” is not properly defined. There is an insufficient structural relationship between “both ends” and the “elastic members”.

In claim 12, line 2, the phrase “contact faces” is not properly defined. Does “in contact faces” mean “in between the contact faces”?

Claim 14 recites the limitation "the outer circumference" in line 2-3. There is insufficient antecedent basis for this limitation in the claim. In line 6, the term “vertically” is not properly defined in line 6. What is “vertically” in reference to?

Claim 17 recites the limitation "said braking-adjustable member" in line 2. There is insufficient antecedent basis for this limitation in the claim. In line 5, the phrase “horizontally extended” is not understood. Does “horizontally extended” mean “parallel to”?

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. As best understood, claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho, US-2001/0052167A1 in view of Katagiri, JP-2003248527A.

Cho discloses the invention as claimed, including a fixed plate (1), pivotal plates (2), a rotation shaft (3) inserted into vertical planes of the fixed (1) and pivotal (2) plates for allowing relative rotational movement and elastic members (4). Cho does not show a braking member.

Katagiri teaches a braking member (96) provided in the outer circumference of a rotation shaft.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the shaft of Cho to include the braking member, as seen in Katagiri, to prevent idling of a rotational shaft from occurring when starting the turning motion of the pivotal plates.

6. Claims 1-13 may be given favorable consideration if rewritten to overcome the 35 U.S.C. 112 rejections.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

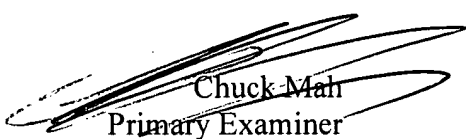
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Vogelbacker whose telephone number is (571) 272-1648. The examiner can normally be reached on 6:30 am-4:00 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. **Until July 14th, the fax phone number for the organization where this application or proceeding is assigned is 703-872-9306; starting July 15th, however, the new fax phone number will be (571) 273-8300, please make note.**

Art Unit: 3677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Vogelbacker
Assistant Examiner
Art Unit 3677



Chuck Mah
Primary Examiner
Art Unit 3677

MTV